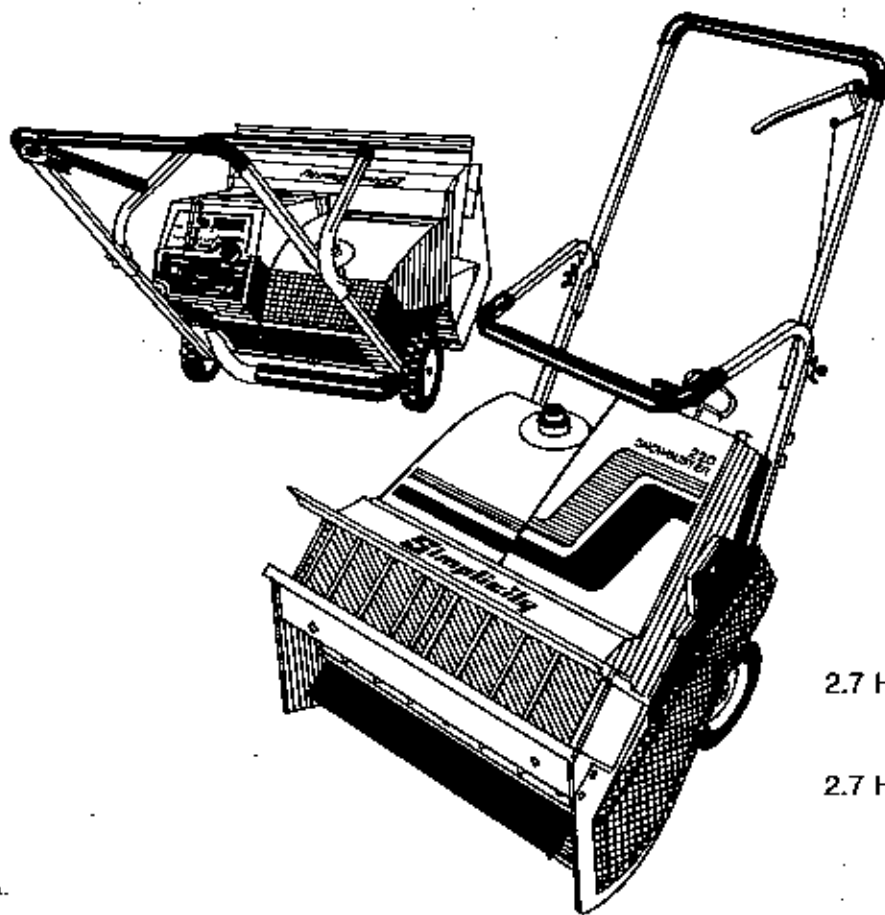


Parts Manual Model Snowbuster 220



2.7 H.P. SNOWTHROWER
MANUAL START
MFG. NO. 1690354
2.7 H.P. SNOWTHROWER
ELECTRIC START
MFG. NO. 1690357

TP-599-04
PRINTED IN U.S.A.
835

Simplicity®

Product Identification:

When ordering parts, keep your products serial number and manufacturer's number in mind. Variations may occur in a part between early and later model products, causing the product serial number to be listed in the parts description whenever these variations occur.

Record your I.D. numbers here for quick, future reference.

Product Mfg. No. _____ S/N _____ Mower Mfg. No. _____ S/N _____

Attention:

Standard torques appear in a chart at the end of the manual, while important individual torques are given on specific parts drawings.

CRITICAL and MAJOR notations point out important facts or instructions which relate to personal safety and proper machine operation. Any CRITICAL notation **C** which may appear in this book, pinpoints characteristics which, if not properly followed, can create a safety hazard. Any MAJOR notation **M** which may appear in this book, marks characteristics which, if not properly followed, may result in operating failure, shortened product life, or greatly reduced quality of the unit.

For your convenience, assembly notes are included in parts drawings to assist in repair and assembly of unit.

NOTE: Specifications may change without notice.

SIMPLICITY PRODUCTS FOR THE PROPER CARE OF EQUIPMENT
These genuine *Simplicity* products will help the owner extend the life of his equipment.

OILS - SPECIFICALLY BLENDED OF HIGH QUALITY BASE OILS & ADDITIVES.

Special Worm Gear (Roticut) Oil for use in all tillers and snowthrowers with worm gear auger drive. Required for protection of brass gears and mating parts. **Case of 12 Quarts, Part #1685100, Individual Quarts 118065.**

Multi-Purpose Hydraulic/Transmission Oil for use in most hydraulic applications, and hydrostatic and gear transmissions. Specific *Simplicity* applications: All hydrostatic transmissions, all bevel gear cases, all Broadmoor, Landlord, Sovereign, 4000, 6000, 7000 transmissions (except Peerless Gear Transmissions). (Not used in SunStar tractor transmission.) **Case of 12 Quarts, Part #1685516, 2½ Gallon Container, Part #1685539.**

2-Cycle Engine Oil, a premium lubricant for all 2-cycle air-cooled engines. **Case of 12 Part #1685517.**

SAE 5W 30 SF/CD Cold Weather Engine Oil for use in all four cycle and diesel engines at 30° temp. and under. **Case of 12 Quarts, Part # 1685576.**

SAE 15W40 SF/CD Engine Oil for gas and diesel engines, warm weather; see engine manufacturer recommendations. **Case of 12 Quarts, Part #1685554.**

Grease Gun Kit has 12" flexible hose to get into tight spots with ease. Kit contains: gun and 1-8 oz. tube of grease, **Part #1685510.** For replacement tube, order **Part # 103077.**

Pneumatic Tire Seal, seals all leaks including bead leaks and punctures up to 3/16 inch diameters. Prevents flats for tread life of tire. Available in following amounts.

Case of 12 - 11 Oz. Tubes	1685537
Case of 24 - 11 Oz. Tubes	1685525
5 Gallon Pail	1685527

Touch-Up Paint keeps equipment in showroom condition.

Spray Cans	Quarts	Daubers 12/Cin.
*Simplicity Orange - 103262 (12 cans/1685179)	1685037	1685520 - Mixed (6 Simp. Orange, 6 White)
**Classic Orange - 1685558 (12 cans/1685559)	1685560	1685562 - Mixed (6 Classic Orange, 6-White)
White 103049 (12 cans/1685178)	1685032	1685562 - Mixed (6-Classic Orange, 6-White) 1685520 - Mixed (6-Simp. Orange, 6-White)
Black - 1685551 (12 Cans/1685552)	N.A.	N.A.
*For 1977 thru early 1986 products. **For products produced after 12/1/85.		

Simplicity Designer Seat Covers are double stitched, easy care vinyl. Keeps new seats new, makes worn seats look new.

• Small Cover for 4000, 5000, & 6100 Tractors	1685540
• Large Cover for 6200, 7000 & 9000 Tractors	1685541
• SunStar Seat Cover	1685577

Extend Equipment Life - Use Only Genuine *Simplicity* Parts

Table of Contents

HOUSING & IMPELLER GROUP	2
FRAME, HANDLE & SHROUD GROUP	4
ENGINE & DRIVE GROUP (1690354 before s/n 47035; 1690357 before s/n 15824)	6
ENGINE & DRIVE GROUP (1690354 after s/n 47034; 1690357 after s/n 15823)	8
DECAL GROUP	10
STANDARD HARDWARE TORQUE SPECIFICATION	Inside Back Cover

(Ref. No. 2) not to be tightened until impeller assy. is installed into bearing (Ref. No. 28).

Spring to be assembled on pins and tight against housing.

Hand tighten against spacer (Ref. No. 5). Torque not to exceed 4 in. lbs. Link (Ref. No. 3) must pivot freely.

Hand tighten against shoulder on pin of adjuster bar. Torque not to exceed 4 in. lbs.

Torque to 45-55 in. lbs.

Must pivot freely when assembled.

Torque to 18-22 in. lbs. Check torque twice at beginning of assy. & completion.

Torque to 9-11 ft. lbs.

Torque to 21-26 in. lbs. (4 places)

Torque to 55-65 in. lbs.

Torque to 13-17 in. lbs. (4 places)

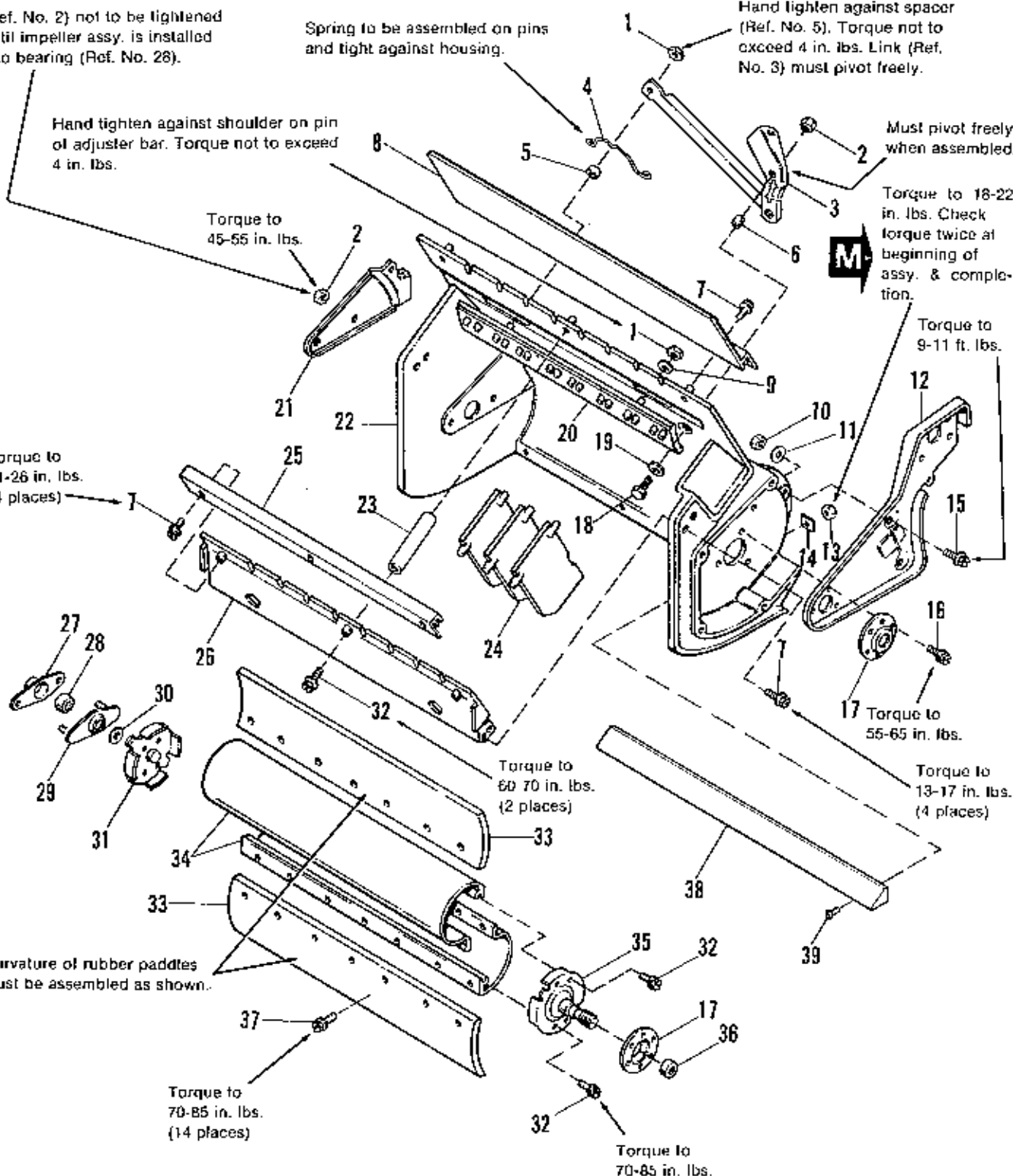
Torque to 60-70 in. lbs. (2 places)

Curvature of rubber paddles must be assembled as shown.

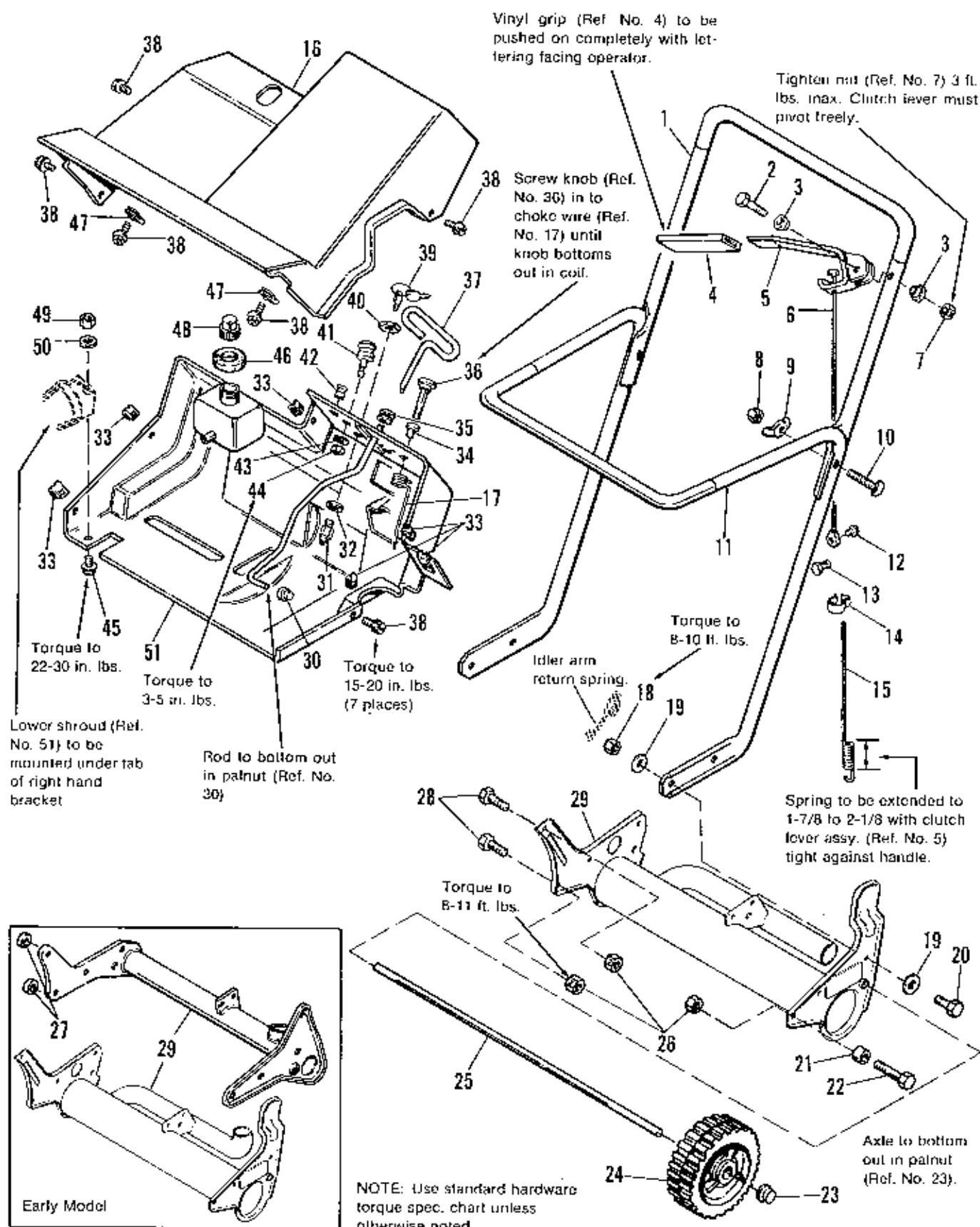
Torque to 70-85 in. lbs. (14 places)

Torque to 70-85 in. lbs.

NOTE: Use standard hardware torque spec. chart unless otherwise noted.



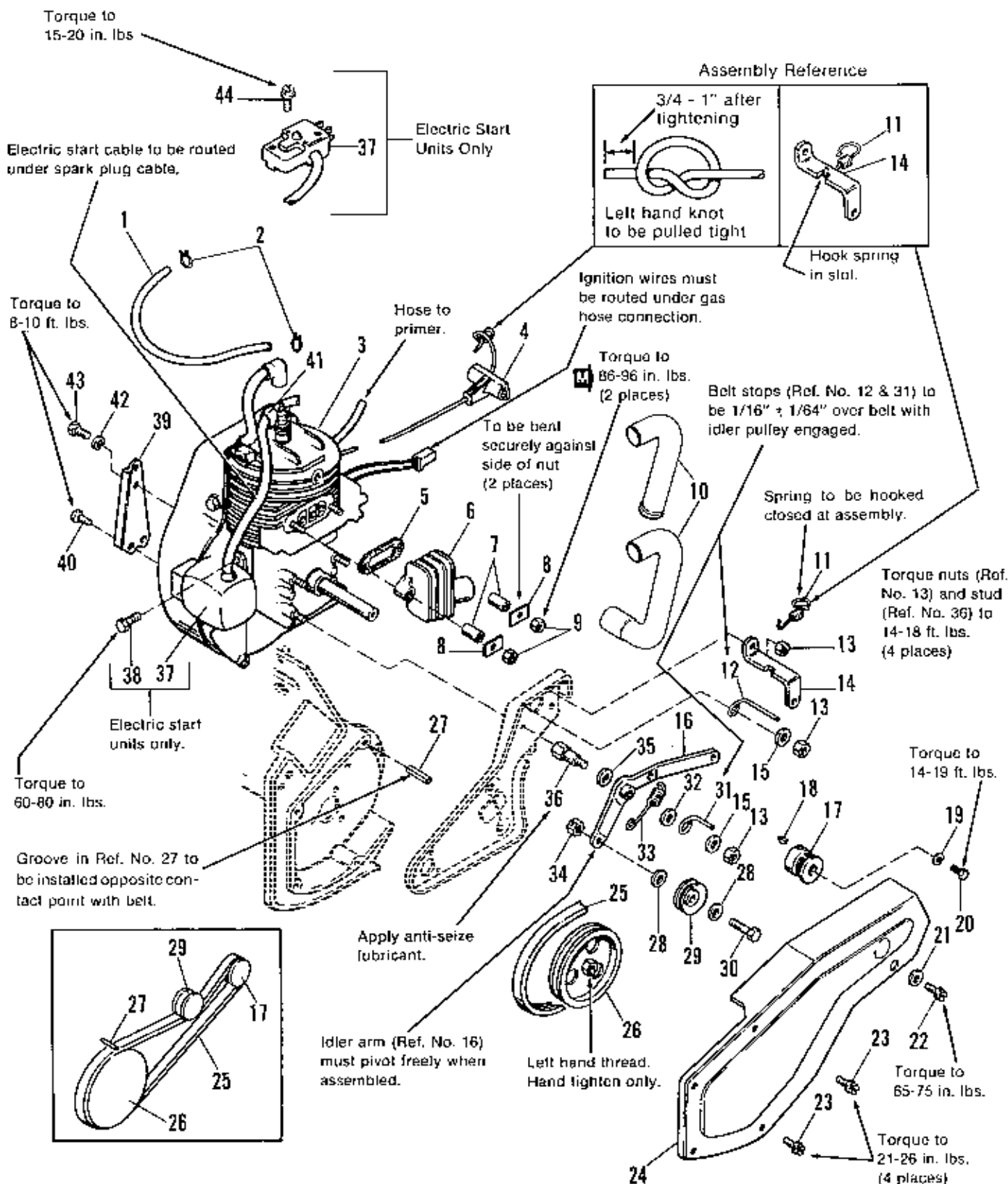
Ref. No.	Part No.	Qty.	Description
1	1664806	1	NUT, Self-Threading
2	923358	3	LOCKNUT, Hex, 1/4-20
3	1666500	1	VANE ASSY., Control
4	1664000	1	SPRING, Detent
5	1664793	1	BUSHING
6	1664792	1	BUSHING
7	1664960	8	SCREW, Hex, Wash. Hd., Slotted, #10-24 x 1/2
8	1665364	1	MOLDING
9	1663878	1	WASHER, Nylon
10	923362	1	LOCKNUT, Hex, 5/16-18
11	919326	1	WASHER, Plain, 5/16
12	1665936	1	BRACKET
13	933896	3	NUT, Nylon Insert, #10-24
14	1668531	3	WASHER
15	921332	1	CAPSCREW, Hex Hd., 5/16-18 x 3/4
16	1664961	3	SCREW, Hex, Wash. Hd., #10-14 x 5/8
17	1664016	2	RETAINER, Bearing
18	921960	1	CAPSCREW, Hex Hd., 1/4-20 x 1
19	921319	1	WASHER, Plain, 1/4
20	1664733	1	BAR, Adjustment
21	1663424	1	BRACKET, R.H.
22	1663403	1	HOUSING, Impeller
23	1665032	1	TUBE
24	1664773	8	VANE
25	1664785	1	MOLDING
26	1663406	1	MOUNT, Front
27	1664752	1	FLANGE
28	1664750	1	BEARING
29	1664751	1	FLANGE ASSY.
30	156089	1	WASHER
31	1664017	1	FLANGE ASSY., R.H.
32	1664959	6	SCREW, Hex Wash. Hd., Slotted, #10-14 x 1
33	1663902	2	PADDLE
34	1663869	2	DRUM, Impeller
35	1663952	1	FLANGE ASSY., L.H.
36	1668292	1	BEARING
37	933958	14	SCREW, Hex Wash. Hd., Taptite, 1/4-20 x 1-1/8
38	1665069	1	SCRAPER
39	932569	3	SCREW, Mach., Flat Hd., #10-24 x 1



Rel. No.	Part No.	Qty.	Description
1	1665029	1	HANDLE, Upper
2	921962	1	CAPSCREW, Hex Hd., 1/4-20 x 1-3/4
3	1665369	2	SPACER
4	1664904	1	GRIP, Handle
5	1664814	1	LEVER ASSY., Clutch
6	1664673	1	CABLE ASSY., Clutch Control
7	923358	1	LOCKNUT, Hex, 1/4-20
8	933707	2	NUT, Acorn, 5/16-18
9	1664794	2	NUT, Wing
10	1665221	2	BOLT, Curved Hd.
11	1665025	1	HANDLE, Lift
12	912731	1	SCREW, Round Hd., #8-32 x 5/16
13	1664926	1	SWIVEL
14	108812	1	CLIP
15	1664465	1	SPRING, Tension
16	1663793	1	SHROUD, Upper
17	1664971	1	WIRE, Choke Control
18	923358	4	LOCKNUT, Plain, 1/4
19	917377	8	WASHER, Plain, 1/4
20	924009	4	CAPSCREW, Hex Hd., 1/4-20 x 7/8
21	1663956	1	SPACER, L.H.
22	921221	1	CAPSCREW, Hex Hd., 5/16-18 x 1-1/2
23	1663430	2	PUSHNUT, 3/8
24	1663428	2	WHEEL
25	1663429	1	AXLE
26	923362	3	LOCKNUT, Hex, 5/16-18
27	1663957	2	SPACER, R.H. (Only required with early model muffler)
28	921332	2	CAPSCREW, Hex Hd., 5/16-18 x 3/4
29	**1685153	1	MUFFLER KIT (1690354 before serial no. 29431)
	1666712	1	MUFFLER ASSY. (1690354 after serial no. 29430)
	**1685153	1	MUFFLER KIT (1690357 before serial no. 12743)
	1666712	1	MUFFLER ASSY. (1690357 after serial no. 12742)
30	1663812	1	PUSHNUT, 1/4
31	1664804	1	SWITCH, Ignition
32	918906	1	LOCKWASHER, Int. Tooth, 5/8
33	933741	6	NUT, Speed, "U", #10
34	1664817	1	GUIDE, Choke Knob
35	1664022	1	GROMMET
36	1664582	1	KNOB, Choke Control
37	1664784	1	ROD, Vane Control
38	1664961	8	SCREW, Hex Wash. Hd., Slotted, #10-24 x 5/8
39	122203	1	KEY & RING ASSY., (2 Keys)
40	122234	1	NUT, Ignition Switch
*41		1	BULB, Primer
42	1663453	1	GUIDE, Starter Rope
43	921880	1	LOCKWASHER, Ext. Tooth, 1/4
44	920435	1	LOCKNUT, Hex, Jam, 1/4-20
45	933737	1	SCREW, Hex Wash. Hd., Slotted, #10-24 x 5/8
46	1664897	1	WASHER, Foam
47	933886	2	NUT, Speed "U", #10
*48		1	CAP, Gas
49	933896	1	LOCKNUT, Center, #10-24
50	923212	1	WASHER, Plain, #10
51	1663444	1	SHROUD ASSY., Lower

*Order from your area Tecumseh engine parts supplier.

**Replacement Kit #1685153 includes muffler assy., exhaust pipe, engine bracket, screws, pushnuts & instruction sheet.



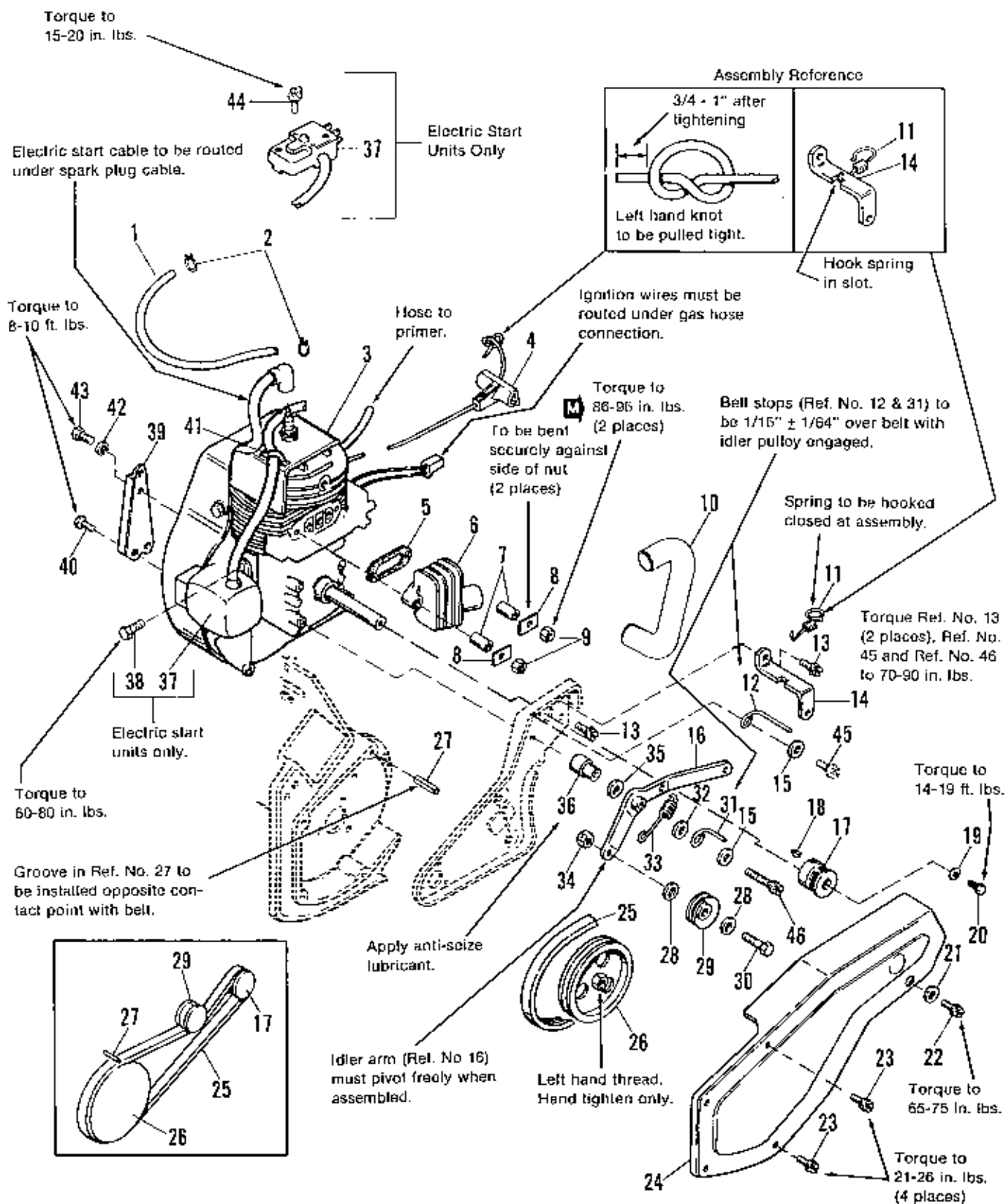
Ref. No.	Part No.	Qty.	Description
1	1665296	1	HOSE, Fuel
2	154372	2	CLAMP, Hose
3		1	ENGINE, Manual Start (Tecumseh Model AH520)
4		1	ENGINE, Elec. Start (Tecumseh Model AH520)
5		1	HANDLE, Pull
6	1663425	1	GASKET, Exhaust Manifold
7	1664857	2	MANIFOLD, Exhaust
8	1666394	2	SPACER
9	923358	2	KEEPER, Nut
10	1664580	2	LOCKNUT, Hex, 1/4-20
	1666710	1	PIPE, Exhaust (1690354 before s/n 29431)
	1664580	1	PIPE, Exhaust (1690354 after s/n 29430)
	1666710	1	PIPE, Exhaust (1690357 before s/n 12743)
	1664988	1	PIPE, Exhaust (1690357 after s/n 12742)
11	1663440	1	SPRING, Extension
12	923362	1	STOP, Belt
13	1664906	4	LOCKNUT, Center, Full, 5/16-18
14	919326	1	BRACKET, Cover
15	1664791	2	WASHER, Plain, 5/16
16	1665895	1	ARM ASSY., Idler
17	910224	1	PULLEY, Drive
18	917356	1	KEY, Woodruff, 5/32 x 5/8
19	921515	1	LOCKWASHER, 5/16
20	933897	1	CAPSCREW, Hex Hd., 5/16-24 x 3/4
21	1664961	1	WASHER, Belleville
22	1664960	1	SCREW, Wash. Hd., Hex, Slotted, #10-14 x 5/8
23	1665932	4	SCREW, Wash. Hd., Hex, Slotted, #10-14 x 1/2
24	1663885	1	COVER, Belt
25	1664033	1	BELT, Drive
26	1664726	1	PULLEY, Driven
27	924940	1	GUIDE, Belt
28	118414	2	WASHER, Plain, 3/8
29	920415	1	PULLEY, Idler
30	1664477	1	CAPSCREW, Hex Hd., 3/8-16 x 1-1/4
31	919381	1	STOP, Belt
32	1664469	1	WASHER, Plain, 5/16
33	928731	1	SPRING, Tension
34	153072	1	LOCKNUT, Hex, Contor, 3/8-16
35	1663435	1	WASHER
36		1	STUD
37		1	KIT, Electric Start
38	931646	3	CAPSCREW, Hex Hd., 1/4-20 x 1/2 (Used on E.S. only)
39	1665935	1	BRACKET, Engine
40	925003	2	SCREW, Hex, Taptite, 1/4-20 x 1/2
41	916964	1	CLIP, Tinnerman (Used on E.S. only)
42	929486	1	LOCKWASHER, 1/4
43	1665695	1	CAPSCREW, Hex hd., 1/4-20 x 3/8
44		2	SCREW, Round Hd., #8 x 3/4 (Used on E.S. only)

*Order from your area Tecumseh engine parts supplier.

Parts listed above are used on:

Mfg. No. 1690354 before serial no. 47035

Mfg. No. 1690357 before serial no. 15824



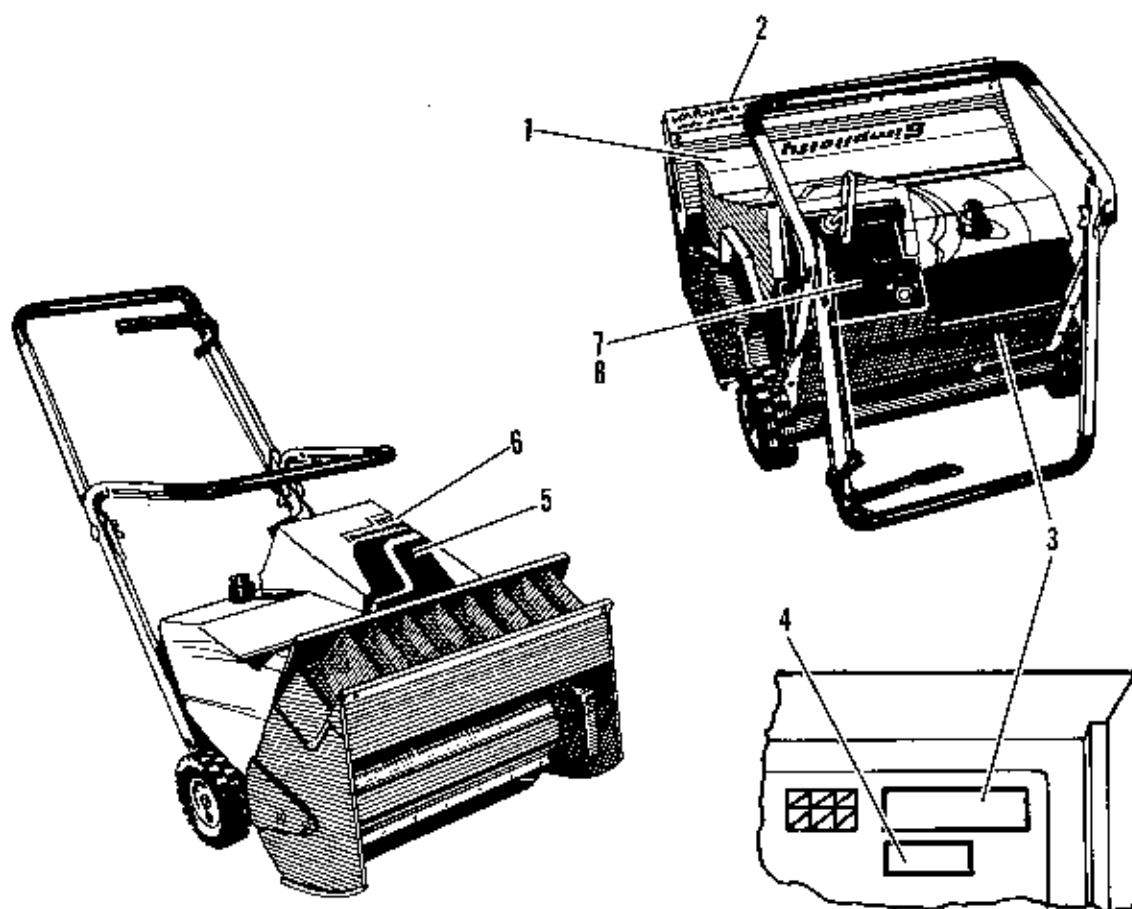
Ref. No.	Part No.	Qty.	Description
1	1665296	1	HOSE, Fuel
2	154372	2	CLAMP, Hose
*3		1	ENGINE, Manual Start (Tecumseh Model AH520)
*		1	ENGINE, Elec. Start (Tecumseh Model AH520)
*4		1	HANDLE, Pull
*5		1	GASKET, Manifold
6	1663425	1	MANIFOLD, Exhaust
7	1664857	2	SPACER
8	1666394	2	KEEPER, Nut
9	923358	2	LOCKNUT, Hex, 1/4-20
10	1666710	1	PIPE, Exhaust
11	1664988	1	SPRING, Extension
12	1663440	1	STOP, Belt
13	934665	2	SCREW, Hex, Whizlock, 5/16-18 x 5/8
14	1664906	1	BRACKET, Cover
15	919326	2	WASHER, Plain, 5/16
16	1664791	1	ARM ASSY., Idler
17	1665895	1	PULLEY, Drive
18	910224	1	KEY, Woodruff, 5/32 x 5/8
19	917356	1	LOCKWASHER, 5/16
20	921515	1	CAPSCREW, Hex Hd., 5/16-24 x 3/4
21	933897	1	WASHER, Belleville
22	1664961	1	SCREW, Wash. Hd., Hex, Slotted, #10-14 x 5/8
23	1664960	4	SCREW, Wash. Hd., Hex, Slotted, #10-14 x 1/4
24	1665932	1	COVER, Belt
25	1663885	1	BELT, Drive
26	1664033	1	PULLEY, Driven
27	1664726	1	GUIDE, Belt
28	924940	2	WASHER, Plain, 3/8
29	118414	1	PULLEY, Idler
30	920415	1	CAPSCREW, Hex Hd., 3/8-16 x 1-1/4
31	1664477	1	STOP, Belt
32	919381	1	WASHER, Plain, 5/16
33	1664469	1	SPRING, Tension
34	928731	1	LOCKNUT, Hex, Center, 3/8-16
35	153072	1	WASHER
36	1667795	1	STUD
*37		1	KIT, Electric Start
38	931646	3	CAPSCREW, Hex Hd., 1/4-20 x 1/2 (Used on E.S. only)
39	1665935	1	BRACKET, Engine
40	925003	2	SCREW, Hex, Taptite, 1/4-20 x 1/2
41	934683	1	CLIP, Tinnerman (Used on E.S. only)
42	916964	1	LOCKWASHER, 1/4
43	929486	1	CAPSCREW, Hex Hd., 1-1/4-20 x 3/8
44	1665695	2	SCREW, Round Hd., #8 x 3/4 (Used on E.S. only)
45	1667864	1	SCREW, Hex, Whizlock, 5/16-18 x 2-1/4
46	935159	1	SCREW, Hex, Whizlock, 5/16-18 x 3/4

*Order from your area Tecumseh engine parts supplier.

Part listed above are used on:




Mfg. No. 1690354 after serial no. 47034

Mfg. No. 1690357 after serial no. 15823



Ref No.	Part No.	Qty.	Description
1	1664935	1	DECAL, <i>Simplicity</i>
2	1665382	1	DECAL, Warning
3		1	DECAL, I.D.
4		1	DECAL, Patent
5	1664927	1	DECAL, Stripe
6	1664929	1	DECAL, Snowbuster
7	1664958	1	DECAL, Dash (Electric Start)
8	1664934	1	DECAL, Dash (Manual Start)

**TORQUE SPECIFICATIONS FOR
STANDARD MACHINE HARDWARE**
TOLERANCE $\pm 20\%$




SIZE	SAE GRADE #2 	SAE GRADE #5 	SAE GRADE #8 
8-32	19 In. Lbs.	30 In. Lbs.	41 In. Lbs.
8-36	20 "	31 "	43 "
10-24	27 "	43 "	60 "
10-32	31 "	49 "	68 "
1/4-20	66 "	8 Ft. Lbs	12 Ft. Lbs.
1/4-28	76 "	10 "	14 "
5/16-18	11 Ft. Lbs	17 "	25 "
5/16-24	12 "	19 "	25 "
3/8-16	20 "	30 "	45 "
3/8-24	23 "	35 "	50 "
7/16-14	30 "	50 "	70 "
7/16-20	35 "	55 "	80 "
1/2-13	50 "	75 "	110 "
1/2-20	55 "	90 "	120 "
9/16-12	65 "	110 "	150 "
9/16-18	75 "	120 "	170 "
5/8-11	90 "	150 "	220 "
5/8-18	100 "	180 "	240 "
3/4-10	160 "	260 "	386 "
3/4-16	180 "	300 "	420 "
7/8-9	140 "	400 "	600 "
7/8-14	155 "	440 "	660 "
1-8	220 "	580 "	900 "
1-12	240 "	640 "	1,000 "

NOTE:

- These torque values are to be used for all *Simplicity* hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
 - For prevailing torque locknuts - use 65% of grade 5 torques.
 - For flange whizlock nuts (and screws) - use 135% of grade 5 torques.
- Unless otherwise noted on assembly drawings all torque values must meet this specification.

BOLT HEAD MARKING

S.A.E. GRADE:

- 2 
- 5 
- 8 

Simplicity Manufacturing, Inc.
500 N. Spring Street
P.O. Box 997
Port Washington, WI 53074-0997